



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

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September 1, 2009

Mr. Michael H. Jones
Naval Facilities Engineering Command, Mid-Atlantic
6506 Hampton Boulevard
Building C, Room 3012
Norfolk, Virginia 23508-1278

SUBJECT: Draft Environmental Impact Statement for the U.S. Marine Corps Grow the Force at Marine Corps Base Camp Lejeune, Marine Corps Air Station New River and Marine Corps Air Station Cherry Point, North Carolina; CEQ Number 20090237

Dear Mr. Jones:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Impact Statement (EIS) in accordance with its responsibilities under Section 309 of the Clean Air Act and Section 102(2)(C) of the National Environmental Policy Act (NEPA). The United States Marine Corps (USMC) proposes to permanently increase USMC forces at three installations: Marine Corps Base (MCB) Camp Lejeune and Marine Corps Air Station (MCAS) New River in Onslow County, and MCAS Cherry Point in Carteret and Craven Counties, North Carolina. MCB Camp Lejeune and MCAS New River are located in south-eastern North Carolina, approximately 50 miles north-northeast of Wilmington. MCAS New River abuts MCB Camp Lejeune and uses services (i.e., utilities and roads infrastructure) provided/maintained by MCB Camp Lejeune. MCAS Cherry Point is located approximately 50 miles east-northeast of MCB Camp Lejeune in Havelock, North Carolina.

The purpose of the proposed action is to provide the infrastructure to support the permanent personnel increases at these three installations. The units proposed for augmentation at the three installations would increase the active duty Marines, civilians, and military school students in the following magnitude: 7,706 at MCB Camp Lejeune, 1,411 at MCAS New River, and 784 at MCAS Cherry Point. The total personnel gain at the three USMC installations due to the proposed action would be approximately 9,900, including military personnel and civilian employees. To support this growth, the USMC proposes a combination of: 1) new infrastructure construction (e.g., buildings, roads, and utility lines); 2) demolition and/or upgrades to existing infrastructure; and 3) relocating existing units and personnel at the installations to consolidate and better support the combat missions. Environmental impacts of the additional training and range operations triggered by the additional personnel were analyzed in two separate Environmental Assessments prepared in January 2009.

Three action alternatives (Alternatives 2-4) were considered in the Draft EIS to accommodate the proposed increase in personnel. All three alternatives include the same amount of personnel increase at the three installations. The differences among alternatives were related to the amount of construction necessary to adequately house and support these new units. Alternative 2,

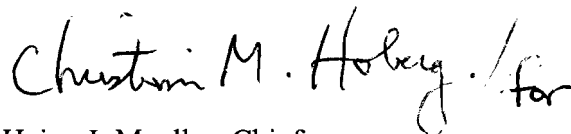
USMC's preferred alternative, includes implementation of new construction to support the permanent increase in base personnel, as well as additional core construction projects, which are currently planned for these installations but not as it relates to the personnel increase. Alternative 3 includes the implementation of only core construction projects. Alternative 4 does not include any new construction projects. The increased personnel would be accommodated within existing facilities or temporary/relocatable buildings already built. The no action alternative (Alternative 1), which does not include any permanent increase in USMC personnel, was also considered.

Based on our review of the Draft EIS, EPA has environmental concerns associated with the proposed action. Development activities have the potential to directly and/or indirectly affect aquatic habitats, wetlands, water quality associated with clearing operations and construction, and the development of new stream/wetland crossings. The Draft EIS identifies approximately 125 acres of estimated wetland impacts within the proposed development areas for the preferred alternative and approximately three acres of wetland impacts for Alternative 3. EPA has concerns about the magnitude of wetland impacts of the preferred alternative, particularly as compared to Alternative 3. Therefore, EPA recommends that the USMC consider a hybrid alternative bracketed by the preferred alternative and Alternative 3 to minimize impacts to wetlands and other jurisdictional waters of the United States. Such an alternative would allow an adaptive management approach in the implementation of certain construction projects by either phasing or delaying construction of certain projects in some of the development areas with greater wetlands impacts until it is necessary to meet specific force requirements. The Final EIS, however, should still address the wetland impacts of a full build-out, should it be needed.

EPA also recommends several actions that the USMC could implement during construction and long term operations to assist the area in meeting air quality standards in the future. In addition, the specific best management practices identified in the Draft EIS should be applied and adequately enforced to attain appropriate results. Enclosed are our specific review comments which provide greater detail regarding EPA's environmental concerns, additional information requested, and recommendations to address these concerns.

We rate this document EC-2 (Environmental Concerns – with more information requested). We are concerned that the proposed action identifies the potential for impacts to the environment that should be avoided/minimized. Also enclosed is a summary of definitions for EPA's EIS ratings. We appreciate the opportunity to review the proposed action. Please contact Ben West of my staff at (404) 562-9643 if you have any questions or want to discuss our comments further.

Sincerely,

A handwritten signature in black ink that reads "Christine M. Hoberg" followed by a stylized flourish that appears to be "for".

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosures

U.S. ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL IMPACT STATEMENT (EIS) RATING SYSTEM CRITERIA

EPA has developed a set of criteria for rating Draft EISs. The rating system provides a basis upon which EPA makes recommendations to the lead agency for improving the draft.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- LO (Lack of Objections): The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.
- EC (Environmental Concerns): The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.
- EO (Environmental Objections): The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental objections can include situations:
 1. Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;
 2. Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;
 3. Where there is a violation of an EPA policy declaration;
 4. Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or
 5. Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.
- EU (Environmentally Unsatisfactory): The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:
 1. The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;
 2. There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or
 3. The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.

RATING THE ADEQUACY OF THE ENVIRONMENTAL IMPACT STATEMENT (EIS)

- 1 (Adequate): The Draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.
- 2 (Insufficient Information): The Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the Draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the Final EIS.
- 3 (Inadequate): The Draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the Draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the Draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised Draft EIS.

**Draft Environmental Impact Statement for the
U.S. Marine Corps Grow the Force Actions at Marine Corps Base Camp Lejeune, Marine
Corps Air Station New River and Marine Corps Air Station Cherry Point, North Carolina**

SPECIFIC EPA REVIEW COMMENTS

Air Quality

A number of important emission reduction practices are identified in the Draft EIS. EPA supports the implementation of a number of the specific measures described, including: 1) idle-reduction practices; 2) switching to ultra low-sulfur diesel fuel; 3) retrofitting equipment to reduce emissions; 4) installing EPA-approved catalysts and filters; and 5) following the Leadership in Energy and Environmental Design (LEED) Green Building Rating System to require that all new construction meet LEED Silver Level certification (or better). Indoor environmental quality should be a priority in the design and construction of these buildings, as much as practicable. EPA also suggests that the USMC consult EPA's Indoor Air Quality website (www.epa.gov/iaq) for suggestions on how to reduce indoor pollution sources.

Given the significant increase in construction and operations-related emissions, EPA proposes an approach for the USMC that focuses on the opportunity to proactively implement some strategies that can reduce particulate pollution. EPA recommends that Camp Lejeune/MCAS New River and MCAS Cherry Point consider and implement all reasonable and appropriate measures to reduce/prevent emissions from the construction and operation activities. EPA recommends that the Final EIS include specific commitments, in the form of mitigation measures, to implement the measures described above, including additional alternative transportation management options (see comments below on "Traffic"), to achieve these emissions reductions.

Traffic

The Draft EIS identifies a nearly 20 percent increase in air emissions, as well as potential traffic intersection impacts, resulting from implementation of the preferred alternative. EPA has concerns about localized carbon monoxide (CO) hot-spots that would be created as a result of the proposed action. EPA's primary concern is the lack of discussion considering alternative transportation management strategies for Camp Lejeune/MCAS New River to address the transportation system deficiencies that will be created by the proposed action. For example, the Draft EIS describes limited existing on-base and off-base mass transit options for MCB Camp Lejeune/MCAS New River employees. However, the Draft EIS states that: "The City of Jacksonville and the USMC are working cooperatively to encourage the use of mass transit as a means to reduce existing and potential future traffic. There are possibilities that the existing express service provided by Jacksonville Transit can be expanded in the future...Discussions between the USMC and the City of Jacksonville have advanced the possibility of using a Park and Ride system so that persons who are properly credentialed could use an express shuttle service to MCB Camp Lejeune and MCAS New River and surrounding on-Base areas."

EPA supports the above described potential traffic management measures and recommends that the USMC include these as commitments in the Final EIS. Improvements considered should include congestion management systems, transportation system management projects, corridor management plans focusing on access along entire corridors, and transit improvements. Given the potential air quality concerns associated with significant transportation deficiencies, EPA recommends that MCB Camp Lejeune/MCAS New River develop a comprehensive alternative transportation program, especially for commuters. This program should promote telecommuting, the use of mass transit, and car pooling, and establishing no-cost or low-cost mass transit (possibly hybrid electric or natural gas powered) between popular points on the base and in the surrounding communities. This initiative could be similar to those programs developed by other military installations, such as Fort Bragg and Camp Pendleton. By providing useable and convenient alternatives to driving, these installations have made significant steps toward helping the areas maintain or improve air quality as well as improving level-of-service problems at key intersections by decreasing the expected traffic demand. This type of program would benefit the environment while simultaneously providing a benefit for many in the surrounding MCB/MCAS community.

Noise

The Draft EIS identifies a number of noise sensitive land uses on-base (e.g., residences, medical clinics, and child development centers) that have the potential to be exposed to incompatible noise levels in Zones II and III. The specific sites for these proposed facilities were not clear from the Draft EIS and may still be under consideration. EPA's primary recommendation would be to locate these noise sensitive receptors outside of these incompatible noise zones as part of the final siting and design process. However, EPA understands the land use constraints for siting alternatives based on existing and future training requirements. Therefore, EPA recommends that the USMC strongly consider the use of sound-proofing and other sound insulation measures in new building construction to reduce interior noise levels and minimize the impacts of noise exposure in these noise sensitive sites, especially for the medical facilities and child development centers. Including these measures as part of new construction would likely be less expensive than retrofitting the same buildings at a later point in time.

With regards to off-base noise impacts, EPA recommends that the Final EIS include a more thorough discussion of the cumulative noise impacts of continuing operations, specifically related to monitoring of past noise complaints and identification of affected adjacent communities. EPA also recommends that any residences exposed to noise levels within the 65+ day-night average sound level (DNL) contours (Zone II) be acquired from willing seller residents to help mitigate such noise exposure. EPA supports development of land use plans and ordinances for lands outside MCB Camp Lejeune, MCAS New River, and MCAS Cherry Point to limit possible future complaints from developers and or businesses not compatible with flight and training operations. EPA suggests that all three bases continue to utilize the noise complaint system for affected residents to report any noise complaints or other incidents. Also, EPA recommends that periodic noise monitoring occur with such a frequency to determine any expansion ("creep") of the noise contours over time and possible incorporation of additional residences.

Wetlands

The Draft EIS identifies approximately 125 acres of estimated wetland impacts within the proposed development areas for the preferred alternative and approximately three acres of wetland impacts for Alternative 3. EPA has concerns about the magnitude of wetland impacts of the preferred alternative, particularly as compared to Alternative 3. The Draft EIS does not identify any specific alternatives considered for project locations to avoid or minimize impacts to jurisdictional waters of the United States. EPA understands that layout and design of most of the proposed projects has not yet occurred, and that these wetland impacts represent conservative estimates. The precise locations of project siting within the development areas may change following finalization of design and issuance of the Record of Decision. Therefore, as the overall project continues into later design phases, EPA recommends consideration of siting and design modifications to further minimize the impacts of individual projects to jurisdictional waters, including wetlands.

EPA also recommends that the USMC consider an adaptive management approach in the implementation of the preferred alternative as another mechanism to minimize impacts to wetlands. For example, is it possible to phase or delay construction of certain projects in some of the development areas with greater wetlands impacts until it is necessary to meet specific force requirements? Alternative 3, which includes only “core” construction projects, identified only three acres of potential wetlands impacts at MCB Camp Lejeune. Therefore, it is construction of the additional Grow the Force projects that will lead to the significantly greater wetlands impacts. Are there certain Grow the Force projects with higher wetlands impacts that could be delayed or potentially not constructed, depending on a future needs assessment based on execution of the overall Grow the Force initiative at the three USMC installations? This will be an important consideration to justify selection of a least damaging practicable alternative in accordance with Clean Water Act Section 404(b)(1) Guidelines for Section 404 wetland permitting.

Wetland permits and possible mitigation activities will be defined prior to construction of any projects affecting jurisdictional wetlands in accordance with the regulatory requirements of the U.S. Army Corps of Engineers. EPA reiterates that any land clearing operations involving vegetation removal with mechanized equipment such as front-end loaders, backhoes, or bulldozers with shear blades, rakes or discs in wetlands; or windrowing of vegetation, land leveling; or other soil disturbances are considered placement of fill material in wetlands and would likely require a Section 404 wetland permit. Any unavoidable wetland impacts should preferably be mitigated within the same watershed to result in no net loss of aquatic functions.

Water Quality Impacts

The Draft EIS identifies a number of waterbodies in the study area, including the New River, which are nutrient-sensitive waters or not meeting their designated uses. EPA is concerned about further secondary and cumulative pollutant loads and exacerbated stormwater problems that can be caused directly or indirectly from development associated with new facilities construction, new parking structures, and roadway improvements. Soil loss and soil

erosion could greatly increase due to extensive land clearing and construction activities. Cut-and-fill activities and construction equipment usage, specifically heavy earth-moving equipment, could result in soil loss due to wind erosion and soil compaction.

All appropriate steps should be taken to address potential impacts to water quality within streams and wetlands. Mitigation measures related to protection of water quality should be tailored depending on the condition of the specific water resource as well as the severity of the potential impacts. Specifically, those waterbodies not currently meeting their designated uses should receive additional protection to ensure that water quality problems are not exacerbated. Monitoring commitments should be included to ensure that water quality and in-stream habitat are fully protected. Stormwater controls (e.g., silt fences and hay bales) should be monitored and replaced periodically for the duration of construction to help ensure success.

In particular, EPA suggests employing the use of Low Impact Development (LID) practices in the engineering, design, and construction of support facilities, including parking structures. LID practices are designed to replicate pre-development hydrologic characteristics and prevent an increase in pollutant loads above pre-development conditions. LID utilizes existing site characteristics to infiltrate, evaporate, and retain increased runoff volumes resulting from site development. The USMC should, at a minimum, integrate stormwater control features on these surface parking lots so that the large impervious features do not add to stormwater problems in the New River or other surface waters. The use of LID activities such as pervious parking lots, stormwater ponds, or other retention devices should be used to maintain hydrographic conditions and prevent further deterioration of environmental quality, including downstream aquatic and riparian habitats. Information on low-impact development can be obtained from: www.lowimpactdevelopment.org.

Specific to construction of the new base road at MCB Camp Lejeune, EPA is concerned about potential impacts to water quality and important nursery areas, essential fish habitat, and related habitat areas of particular concern. EPA recommends that USMC include significant post-construction stormwater management in the design of the new base road to minimize impacts to Northeast Creek, Wallace Creek and Bearhead Creek. Specifically, the use of best management practices in the design of the new bridges to keep stormwater runoff from entering these tributaries directly, and use of enhanced swales, stormwater ponds, and sediment basins to capture and treat post-construction stormwater runoff before entering these important aquatic resources. In addition, several mitigation measures are described in the Draft EIS to minimize impacts to natural resources from the new base road, including: 1) constructing longer bridges to span wetlands and marsh habitat and to allow for wildlife crossing, and 2) constructing specific wildlife crossings for reptiles, amphibians and small mammals. EPA supports these additional measures and recommends that the Final EIS include specific commitments to implement the mitigation measures described above.